

What is claimed is:

1. An auger mixer for mixing a concrete mix comprising:
an elongated mixer housing having a first end and a second end, the mixer housing having
a mixing chamber for mixing the concrete mix therein;
5 a mixing auger disposed in the mixing chamber and having an auger shaft, the auger shaft
having a longitudinal shaft axis extending from the first end to the second end of
the mixer housing;
a power source connected to the mixing auger for rotating the mixing auger about the
longitudinal shaft axis of the shaft;
10 the mixer housing having a first end wall adjacent the first end of the housing;
a bearing assembly mounting one end of the auger shaft to the first end wall of the housing
for rotation relative to the first end wall about the shaft axis;
a seal assembly comprising a stationary seal remaining stationary relative to the first end
wall and a rotating seal rotating about the auger shaft axis, the stationary seal and
15 the rotating seal contacting one another to create a seal preventing the concrete mix
from exiting the mixing chamber and moving toward the bearing assembly.

2. The auger mixer according to claim 1 wherein the fixed seal comprises a
first fixed seal member and a second fixed seal member, and the rotating seal comprises a
20 first rotating seal member and a second rotating seal member.

3. The auger mixer according to claim 2 wherein the first fixed seal member
and the first rotating seal member are made of a resilient material deformed to engage and
urge the second fixed member and the second rotating member, respectively, into frictional
25 engagement with one another to create the seal.

4. The auger mixer according to claim 3 wherein the first fixed and rotating
seal members are made of rubber and the second fixed and rotating seal members are made
of steel.

5. The auger mixer according to claim 1 wherein the stationary seal comprises a sealing surface and the rotating seal comprises a sealing surface frictionally engaging and sealing against the sealing surface of the stationary seal.

5 6. The auger mixer according to claim 5 wherein the sealing surfaces of the stationary seal and the rotating seal are comprised of steel.

7. The auger mixer according to claim 6 wherein the sealing surfaces of the stationary seal and the rotating seal are circular.

10 8. The auger mixer according to claim 7 wherein the sealing surfaces of the stationary seal and the rotating seal are cone shaped and have outer circular cone ends, the cone shaped sealing surfaces of the stationary and rotating seals being oppositely opposed to one another so that only the outer circular cone ends contact one another.

15 9. The auger mixer according to claim 8 wherein a flexible stationary seal member and a flexible rotating seal member engage the stationary sealing surface and the rotating sealing surface, respectively, and bias the stationary sealing surface and the rotating sealing surface toward one another.

20 10. An auger mixer for mixing a concrete mix comprising:
an elongated mixer housing having a first end and a second end, the mixer housing having
a mixing chamber for mixing the concrete mix therein;
a mixing auger disposed in the mixing chamber and having an auger shaft, the auger shaft
25 having a longitudinal shaft axis extending from the first end to the second end of
the mixer housing;
a power source connected to the mixing auger for rotating the mixing auger about the
longitudinal shaft axis of the shaft;
the mixer housing having a first end wall adjacent the first end of the housing;
30 a bearing assembly mounting one end of the auger shaft to the first end wall of the housing
for rotation relative to the first end wall about the shaft axis;

a seal assembly preventing the concrete mix from exiting the mixing chamber and moving toward the bearing assembly;

a steel plate attaching the bearing assembly to the first end wall of the housing;

a compressible plate between the steel plate and the first end wall; and

5 a securing member securing the steel plate and the compressible plate to the first end wall whereby the compressible plate permits flexing of the steel plate and the first end wall relative to one another so as to permit slight movement of the angular disposition of the shaft axis relative to the first end wall.

10 11. The auger mixer according to claim 10 wherein the compressible plate comprises rubber.

12. The auger mixer according to claim 10 wherein the seal assembly comprises a stationary seal remaining stationary with the first end wall and a rotating seal rotating about the shaft axis, the stationary seal and the rotating seal contacting one another to provide a seal preventing the concrete mix from exiting the mixing chamber.

15 13. A method for sealing a rotating auger shaft relative to a first end wall of a concrete auger mixer, the auger mixer having a mixing chamber holding the auger shaft and containing a concrete mix, the method comprising:

20 placing a seal assembly between the first end wall and the rotating shaft, the seal assembly comprising a stationary seal and a rotating seal;

25 maintaining the stationary seal stationary with respect to the first end wall; rotating the rotating seal about the rotating axis of the rotating auger shaft; frictionally contacting the stationary seal with the rotating seal to provide a sealing engagement there between for preventing concrete mix from exiting the mixing chamber through the first end wall.

30 14. The method according to claim 13 and further comprising using a stationary seal having a circular stationary sealing surface and a rotating seal having a circular

rotating sealing surface, and contacting the circular stationary sealing surface with the circular rotating sealing surface;

15. The method according to claim 14 and further comprising biasing the
5 circular rotating surface and the circular stationary surface toward one another.